

IN THE CLAIMS

1. (currently amended) A vacuum pumping arrangement for controlling pressure in a chamber comprising:  
a molecular pumping mechanism and a backing pumping mechanism, the backing pumping mechanism being rotatable by at least a 2kw motor, the motor being arranged to rotate the molecular pumping mechanism simultaneously with the backing pumping mechanism, and control means for controlling rotational speeds of the backing pumping mechanism and the molecular pumping mechanism.
2. (original) The vacuum pumping arrangement as claimed in claim 1, wherein the molecular pumping mechanism and the backing pumping mechanism are driven by a common drive shaft which is driven by the motor
3. (original) The vacuum pumping arrangement as claimed in claim 1, wherein the molecular pumping mechanism comprises a molecular drag pumping mechanism.
4. (original) The vacuum pumping arrangement as claimed in claim 3, wherein the molecular drag pumping mechanism comprises a Holweck pumping mechanism.
5. (original) The vacuum pumping arrangement as claimed in claim 4, wherein a holweck cylinder of the Holweck pumping mechanism is formed from carbon fiber reinforced material.
6. (original) The vacuum pumping arrangement as claimed in claim 1, wherein the molecular pumping mechanism comprises a turbomolecular pumping means.
7. (original) The vacuum pumping arrangement as claimed in claim 1, wherein the backing pumping mechanism is a regenerative pumping mechanism.
8. (original) The vacuum pumping arrangement as claimed in claim 1, wherein the control means comprises means for measuring the pressure in the chamber, and means for changing the

rotational speeds of the molecular pumping mechanism and the backing pumping mechanism in dependence on the measured pressure.

9. (currently amended) A method of controlling pressure in a chamber connected to an inlet of a vacuum pumping arrangement including a backing pumping mechanism and a molecular pumping mechanism, and at least a 2 kw motor for driving the backing pumping mechanism, the method comprising:

using the motor to control rotation of the molecular pumping mechanism thereby controlling pressure in the chamber.

10. (original) A method as claimed in claim 9, wherein the backing pumping mechanism and the molecular pumping mechanism are coupled to a common drive shaft and the method comprises using the motor to control rotation of the common drive shaft thereby controlling pressure in the chamber.

11. (original) A vacuum pumping arrangement as claimed in claim 3, wherein the molecular pumping mechanism comprises a turbomolecular pumping means.

12. (original) A vacuum pumping arrangement as claimed in claim 4, wherein the molecular pumping mechanism comprises a turbomolecular pumping means.

13. (original) A vacuum pumping arrangement as claimed in claim 6, wherein the backing pumping mechanism is a regenerative pumping mechanism.

14. (original) A vacuum pumping arrangement as claimed in claim 13, wherein the control means comprises means for measuring the pressure in the chamber, and means for changing the rotational speeds of the molecular pumping mechanism and the backing pumping mechanism in dependence on the measured pressure.

15. (original) A vacuum pumping arrangement as claimed in claim 11, wherein the backing pumping mechanism is a regenerative pumping mechanism.

16. (original) A vacuum pumping arrangement as claimed in claim 12, wherein the backing pumping mechanism is a regenerative pumping mechanism.